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To: Forest Supervisors: Eldorado, Inyo, Lassen, Plumas, Modoc, Sierra, Stanislaus, Shasta-Trinity, Sequoia and Tahoe National Forests and the Lake Tahoe Basin Management Unit

To: Park Superintendents: Sequoia Kings Canyon and Yosemite National Parks

Subject: Douglas-fir Tussock Moth Pheromone Detection Survey 2007 Report (NE08-01)

Enclosed are the results of the 2007 cooperative Douglas-fir tussock moth (DFTM) pheromone detection survey (Table 1). During 2007, traps were installed in 164 plots (5 traps/plot) with data collected for all plots (100% reporting). There were 163 plots (99%) with an average of <25 males per trap and 1 plot (1%) that averaged >25 moths per trap. This represents a continued decline in trap counts over the past two years. The only plot that averaged >25 moths per trap in 2007 was located on the Almanor Ranger District, Lassen National Forest.

Increases and declines in trap counts are very common with DFTM populations. Based on the results of the 2007 trap monitoring, there should be very few areas where defoliation is detected in 2008. Forest Health Protection staff will conduct monitoring of other life stages this summer in areas where DFTM activity exceeded an average of 25 males/trap and/or where defoliation is observed. Land managers will be notified of the results of the additional monitoring. Field going personnel are urged to continue to check for evidence of feeding and defoliation on white fir throughout the susceptible host type this coming summer and fall and report any findings to their Forest Health Protection Shared Services Office.

Light to heavy defoliation from Douglas-fir tussock moth was detected in 2007 by aerial surveys on the Shasta-Trinity National Forest and adjacent private lands on over 7,000 acres (Figure 1). This represents a large expansion of the outbreak area compared to 2006. However, the results of egg mass surveys conducted in the fall of 2007 indicate that the outbreak has collapsed and little or no new defoliation is expected in 2008. In the southern Sierra, the outbreak that has resulted in large areas of defoliation (up to 23,000 acres) over the past couple of years has also collapsed with no defoliation observed in 2007.

Sufficient trapping materials have been ordered for the detection survey plots for 2008. They will be distributed to cooperators in June or July of this year. Please direct any questions and/or observations of feeding or defoliation to Danny Cluck (530-252-6431) or Beverly Bulaon at (209-532-3671). Updates on population monitoring will be distributed to land managers as



needed. FHP appreciates the continued cooperation from all agencies in this ongoing west-wide survey effort.

*/s/ Danny Cluck*

Daniel R. Cluck  
Entomologist  
Forest Health Protection  
NE CA Shared Service Area

Enclosure

cc: Don Owen, CDF&FP, Redding  
Don Dockery, BLM, Susanville  
Peter Hall, BLM, Alturas  
FHP – Regional Office, Shasta – Trinity NF & Stanislaus NF

This report is available on the R5-FHP website: <http://www.fs.fed.us/r5/spf/fhp/index.shtml>

Table 1. Number of Douglas-fir tussock moth pheromone detection survey plots by trap catch for 1995-2007 for California.

Year	Total # of Plots	NUMBER OF PLOTS WITH AN AVERAGE MOTH CATCH PER TRAP OF:														
		0<10	10<20	20<25		25<30	30<35	35<40	40<45	45<50	50<55	55<60	60<65	65<70	70<75	75+
1995	158	77	35	13		16	7	7	3	0	0	0	0	0	0	0
	100%	49%	22%	8%		10%	4.5%	4.5%	2%							
1996	149	33	26	16		8	7	12	9	5	8	6	8	5	1	5
	100%	22%	17%	11%		6%	4%	8%	6%	3%	6%	4%	6%	3%	1%	3%
1997	142	88	27	10		9	4	3	0	0	1	0	0	0	0	0
	100%	62%	19%	7%		6%	3%	2%			<1%					
1998	159	81	22	11		9	6	3	10	7	5	2	1	1	1	0
	100%	51%	14%	7%		6%	3%	2%	6%	4%	3%	<1%	<1%	<1%	<1%	
1999	159	126	20	5		3	2	2	0	0	0	1	0	0	0	0
	100%	79%	13%	3%		2%	1%	1%				1%				
2000	185	154	15	4		4	0	1	2	2	2	0	0	1	0	0
	100%	83%	8%	2%		2%		<1%	1%	1%	1%			<1%		
2001	183	95	57	13		10	6	0	1	1	0	0	0	0	0	0
	100%	52%	31%	7%		5%	3%		<1%	<1%						
2002	168	126	31	5		3	3	0	0	0	0	0	0	0	0	0
	100%	75%	18%	3%		2%	2%									
2003	163	53	42	11		11	10	14	13	3	1	4	0	1	0	0
	100%	32%	26%	7%		7%	6%	8%	8%	2%	1%	2%		1%		
2004	174	68	43	6		16	11	6	5	3	0	2	1	1	0	0
	* 93%	39%	25%	3%		9%	6%	3%	3%	2%		1%	<1%	<1%		
2005	195	139	15	11		7	4	3	2	3	1	0	0	0	1	1
	*95%	71%	8%	5%		4%	2%	2%	1%	2%	<1%				<1%	<1%
2006	164	98	26	8		8	5	3	4	3	4	2	0	1	1	1
	100%	60%	16%	5%		5%	3%	2%	2%	2%	2%	2%		<1%	<1%	<1%
2007	164	157	6	0		0	1	0	0	0	0	0	0	0	0	0
	100%	96%	4%				<1%									

\* Some plots were not collected due to weather.

Figure 1. 2007 aerial detection survey map of DFTM defoliation, Shasta-Trinity NF.

